

Fig-1

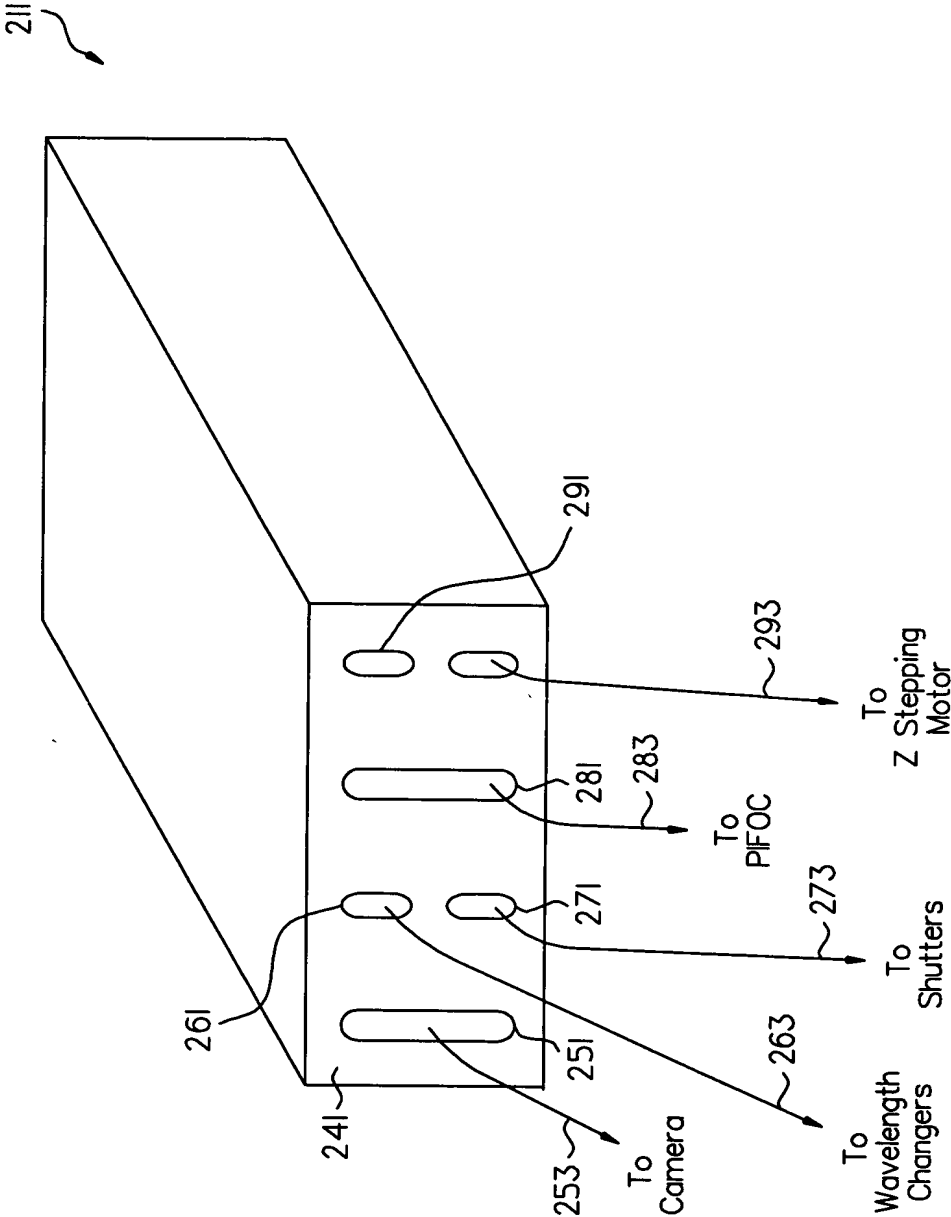


Fig-2

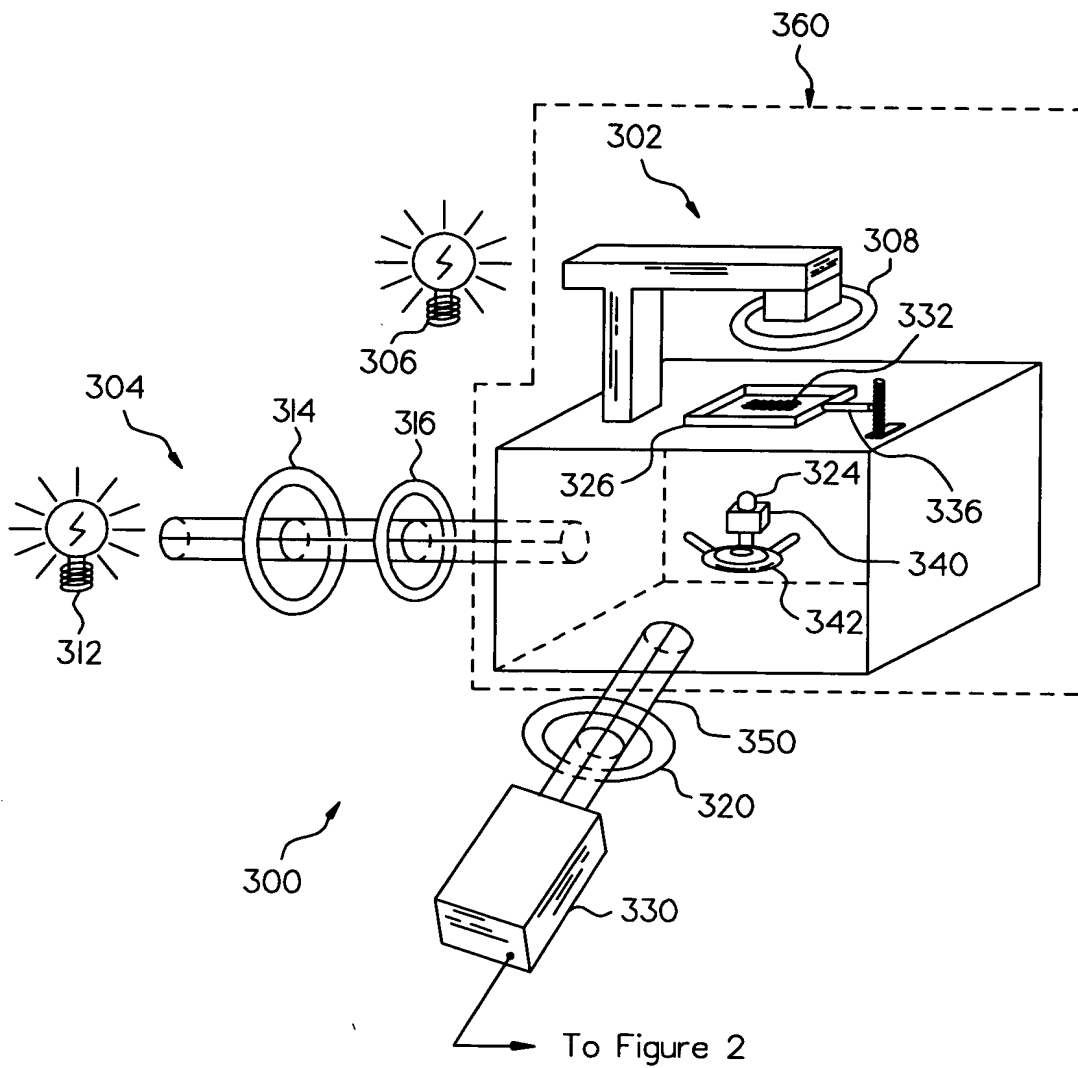


Fig- 3

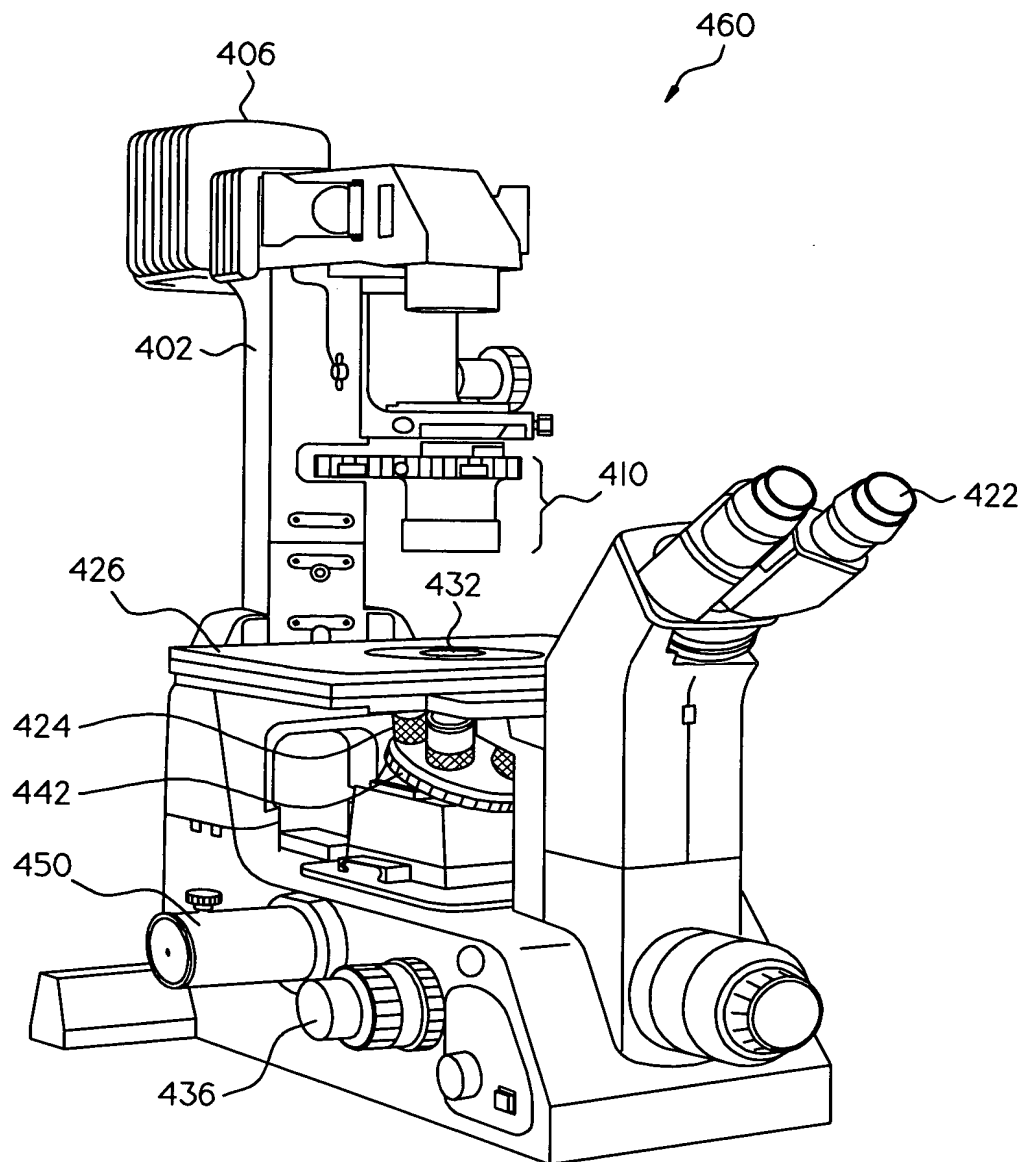
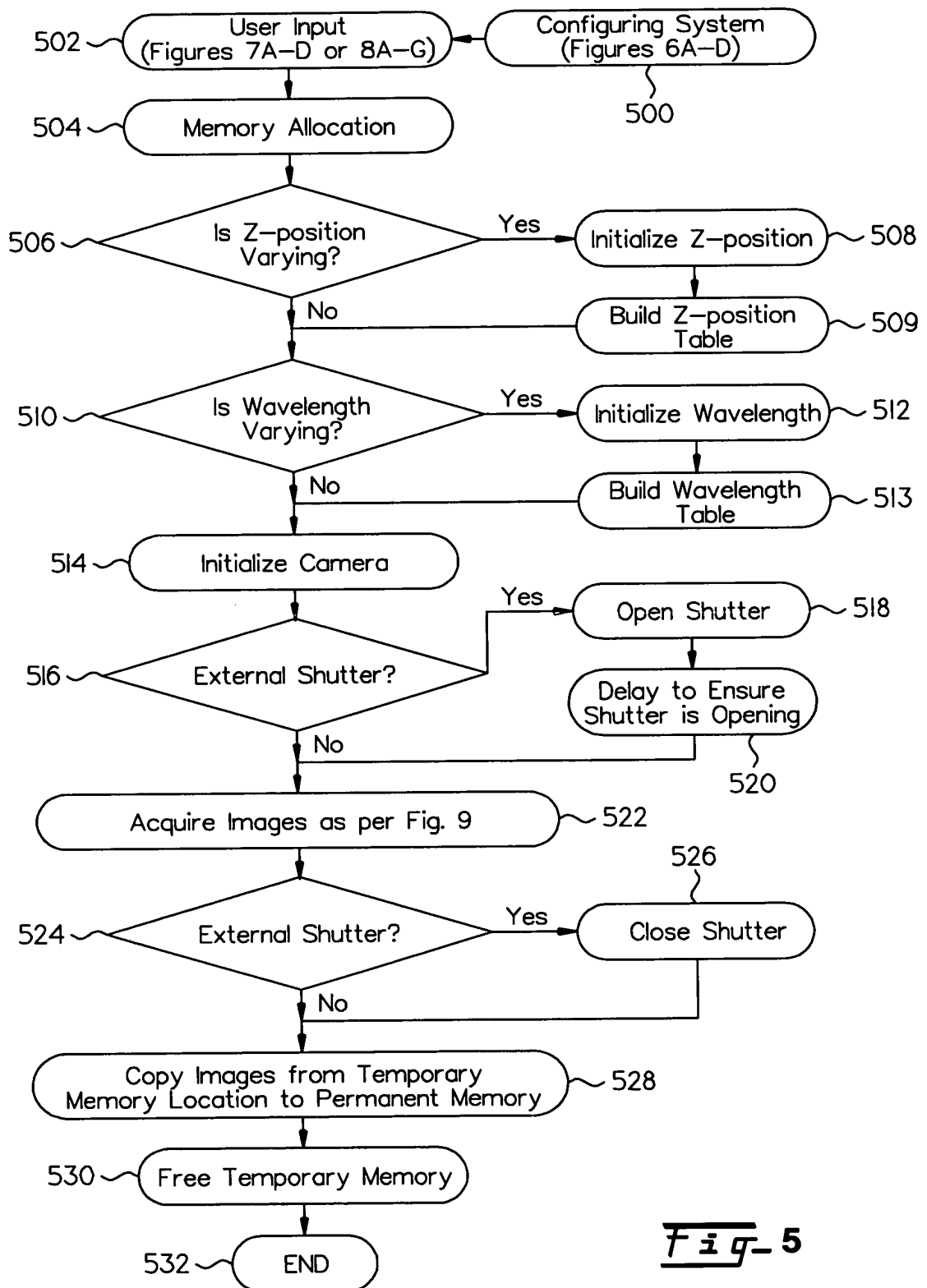


Fig. 4

Fig- 5

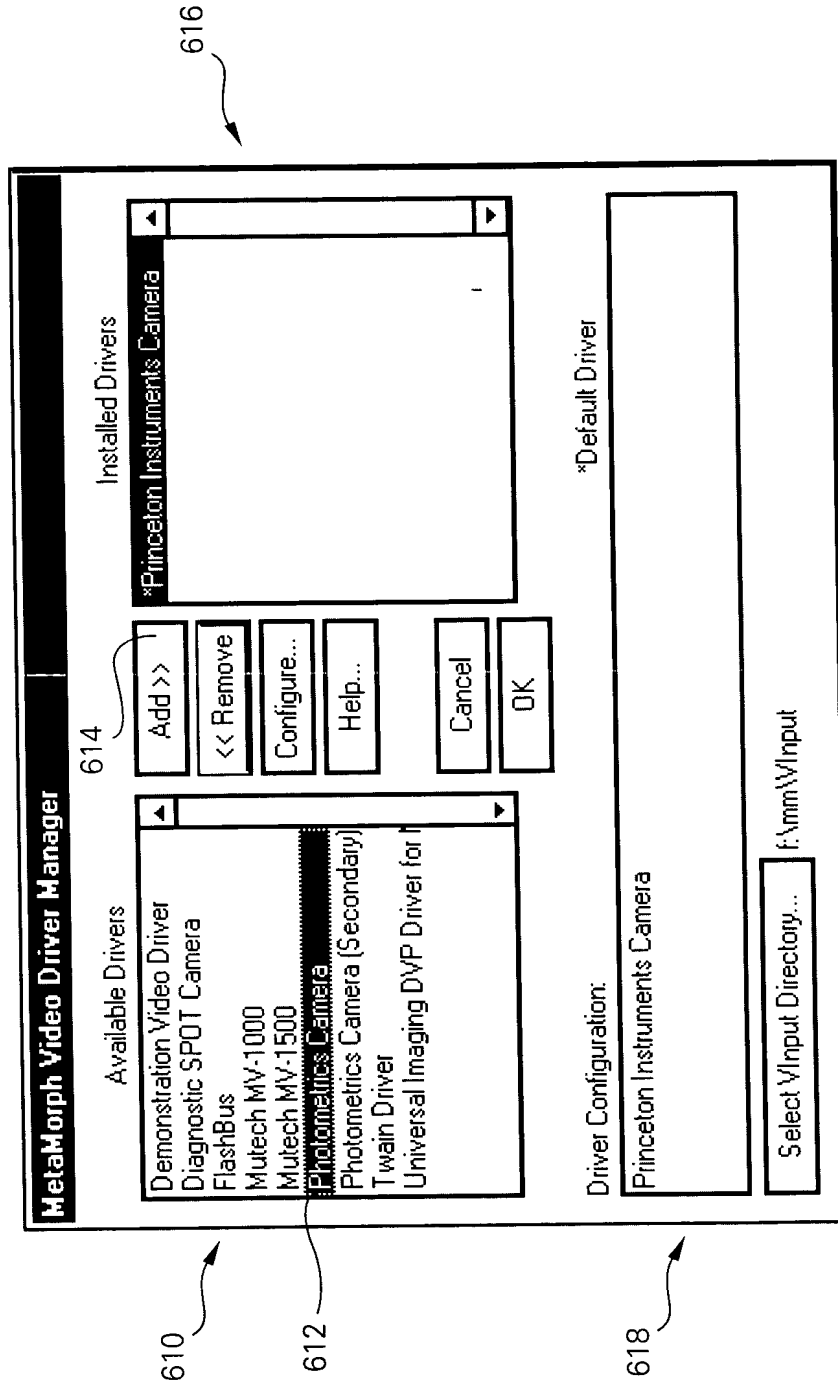
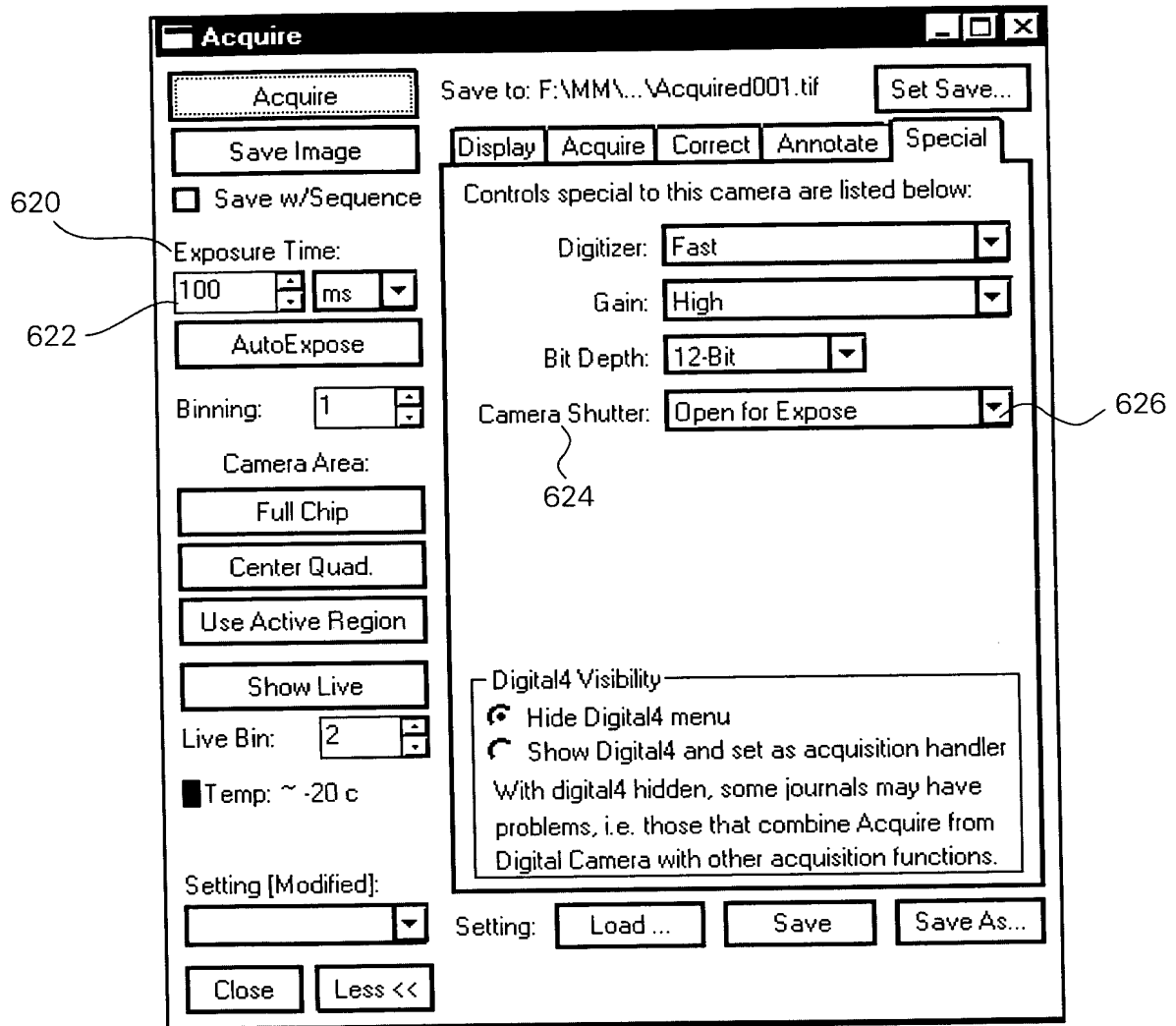


Fig- 6A

7/23



F i g - 6B

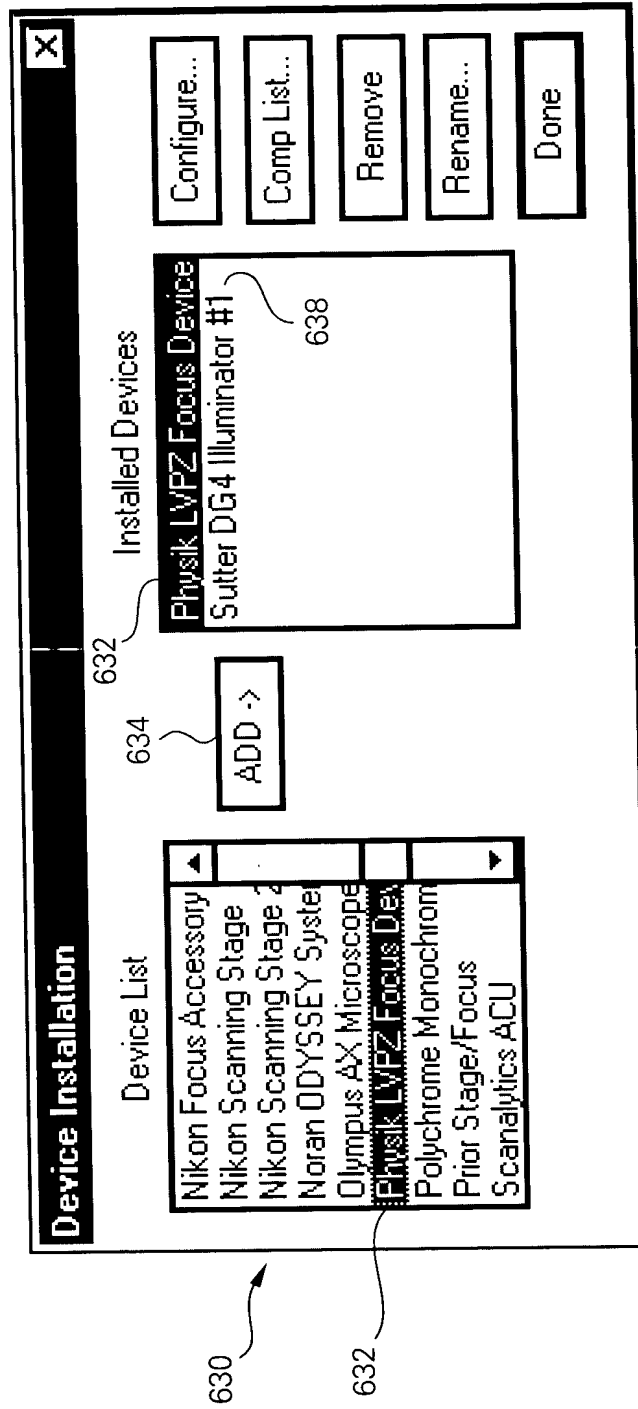


Fig-6C



9/23

642

640

644

646

648

Focus

Current Position:    micrometers

Move Increment: 

☐ 0.1 ☐ 0.2 ☐ 0.5 ☒ 1.0 ☐ 2.0 ☐ 5.0 ☐ 10.0 ☐ Custom

 Custom Increment:

Set Top

Go To 12

Set Home

Go To 0

Set Bottom

Go To -10

More >>

Close

F i g- 6D

10/23

702

704

706

708

710

732

722

728

724

726

724

718

720

730

**Stream Acquisition**

Acquire Focus Wavelength Camera Parameters

Acquisition Mode: Stream to RAM

Starting frame #:

Number of z sets: 23

Acquisition Information:

Your current acquisition region is:	512x512x2
Total number of frames:	46
Amount of memory stream will use:	23.00 Mb
The resulting stack will also use:	23.00 Mb
Amount of memory available:	255.50 Mb

External Shutter: Sutter DG4

☒ Use with high-speed Focus Motor

☒ Use with high-speed Wavelength changer

Status: Configured OK

Record Configuration State Close

F i g - 7A

702

**Stream Acquisition**

706 **Acquire** Focus Wavelength Camera Parameters

732 Focus Motor:

734 Start At: Top 644

736 Move To: Bottom 648

After: Current Position 642

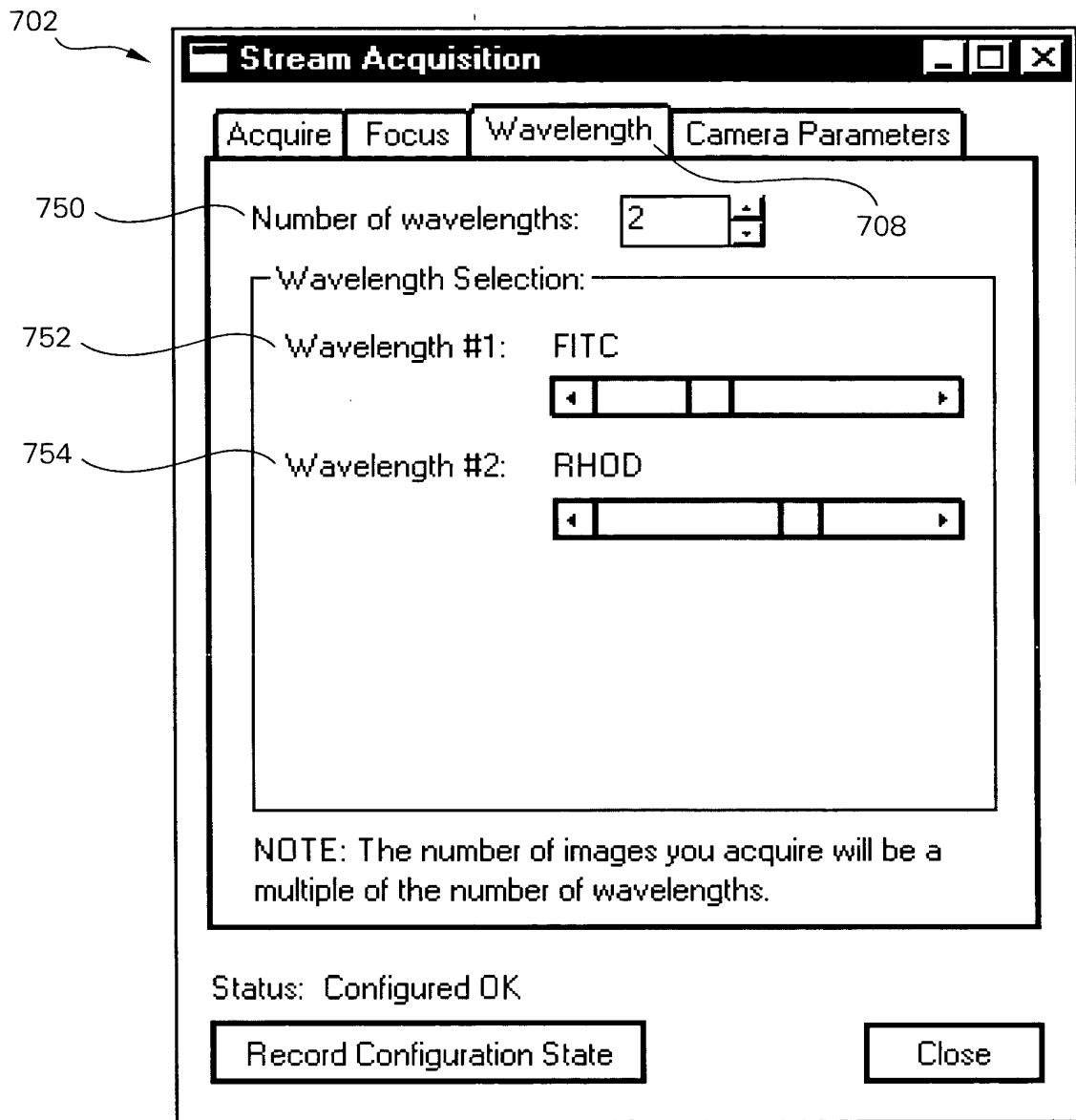
738 Plane Distance: 1

740 Total Distance: 22

Status: Configured OK

Record Configuration State Close

Fig. 7B

Fig-7C

702

**Stream Acquisition**

Acquire Focus Wavelength Camera Parameters

760 Acquisition Mode: 710

762 ☒ Acquire images at frame rate

764 ☐ Acquire images on external trigger

766 Number of frames to skip: 0

768 Resolution Mode: Full

Digital Camera Controller Parameters:

Camera State: Not Available

Shutter Mode: Not Available

Clear Mode: Not Available

Status: Configured OK

Record Configuration State Close

F i g - 7D

802

804

812

814

806 808 810

816

818

820

822

824

826

**Multi Dimensional Acquisition**

Main

Timelapse

Wavelengths

Z Series

Stream

Snap

Live

Bin: 1

Full Chip

Center Quad.

Active Region

Wavelength: 2:FITC

Preview

Acquire

Close

☒ Do Timelapse

☒ Multiple Wavelengths

☒ Do Z Series

☒ Stream

Description: \*Images automatically saved with base file\*

Multi Dimensions Experiment acquiring Z series of DAPI, FITC, and RHOD for 3 time points, spaced 10 seconds apart.

Select Directory...

F:\MM\RUN\IMAGES

☐ Increment base name if file exists

Base Name: Experiment1

Save State...

Load State...

Fig. 8A

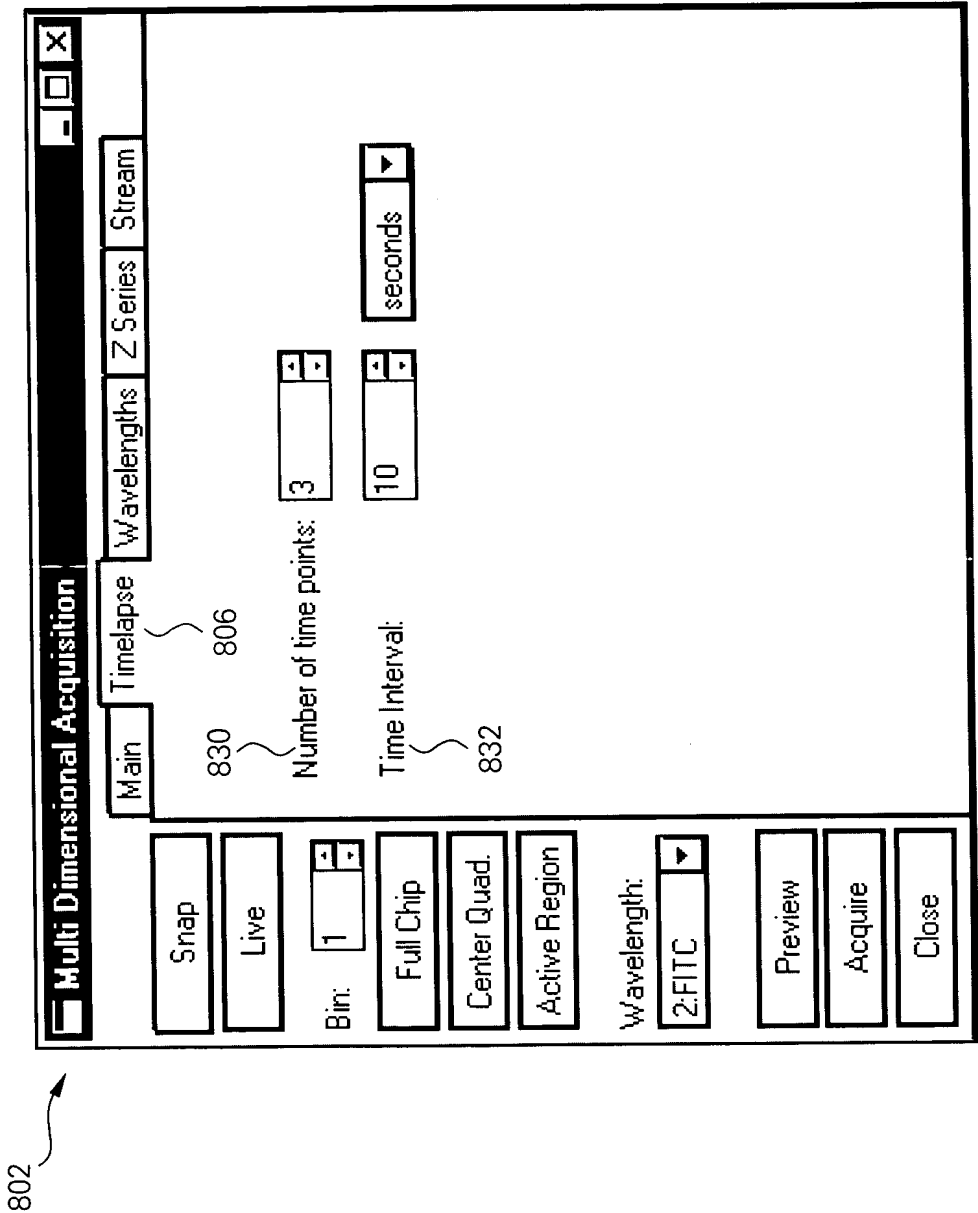


Fig-8B

802

Multi Dimensional Acquisition

Snap

Live

Bin: 1

Full Chip

Center Quad.

Active Region

Wavelength: 3:RHOD

Preview

Acquire

Close

Main

Timelapse

Wavelengths

Z Series

Stream

Current Position: 840

Increment: 842

Range: 844

Top: 846

Bottom: 848

Step Size: 850

Number of Steps: 852

0

1

22

12

-10

1

23

microm

810

☐ Range Around Current

Set Top To Current

Set Bottom To Current

Center Around Current

Fig-8C



802

**Multi Dimensional Acquisition**

808

860

Main Timelapse Wavelengths Z Series Stream

# of Waves 3 Current Wavelength: 1:DAPI 862

Name: DAPI 864

☒ Do Z Series ☒ Stream 866

☐ Auto Focus

Exposure set on stream page.

Illumination

Illumination device set on the STREAM page.

Controller 1: DAPI

Alignment Cropping X: 0 Y: 0 Set Alignment...

860

Snap

Live

Bin: 1

Full Chip

Center Quad.

Active Region

Wavelength: 1:DAPI

Preview

Acquire

Close

Fig-8D

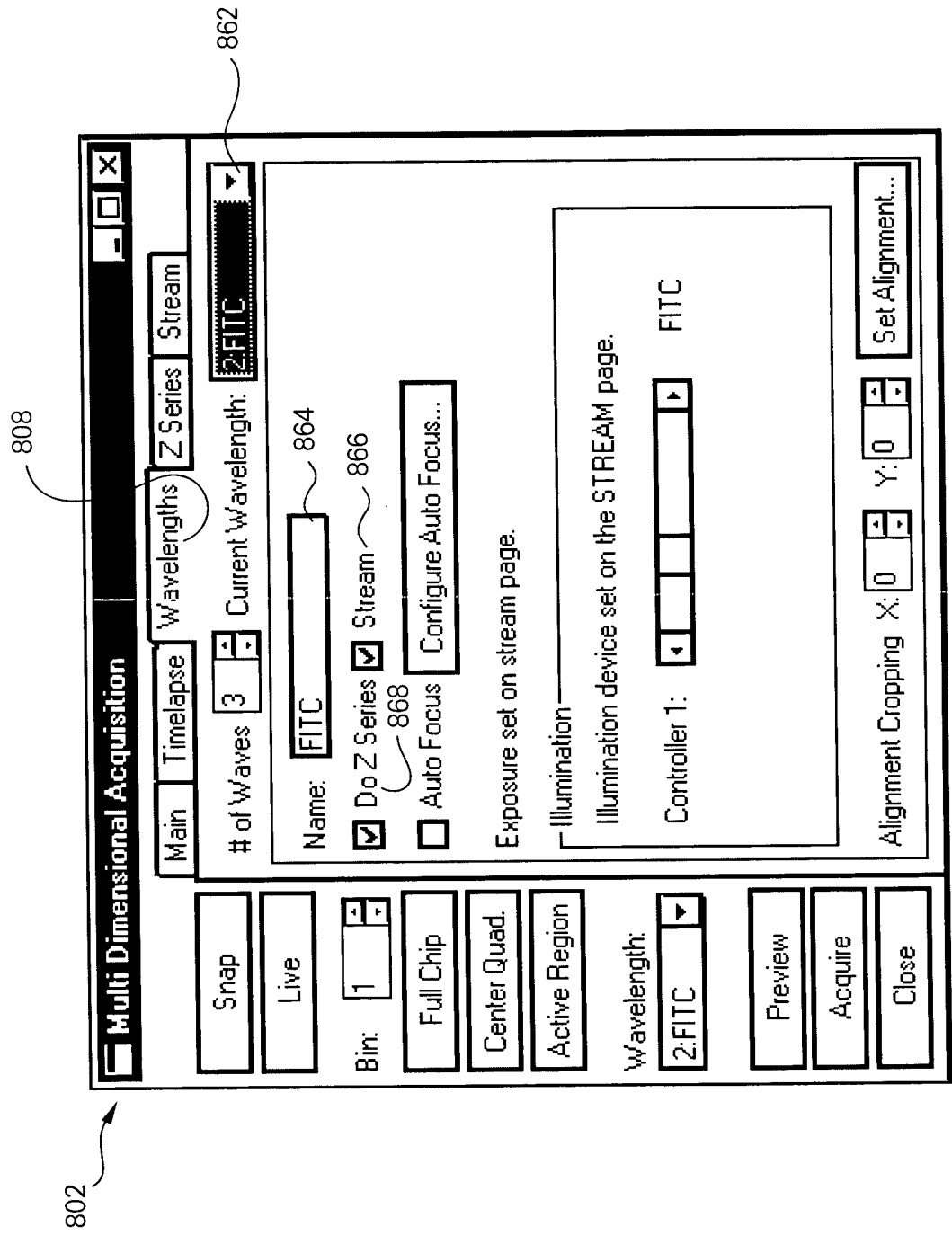


Fig. 8E

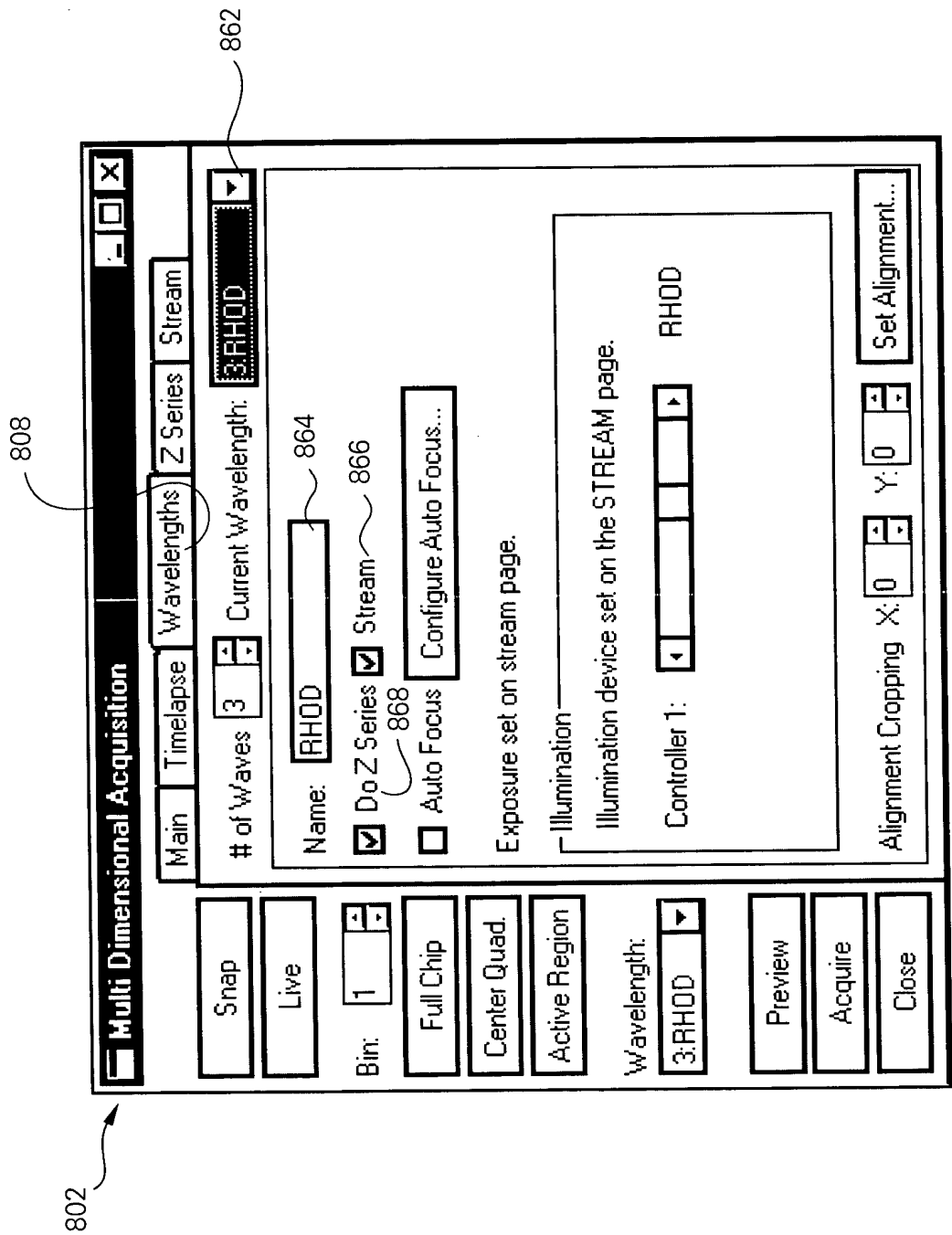


Fig. 8F

802

**Multi Dimensional Acquisition**

Main | Timelapse | Wavelengths | Z Series | Stream 812

☐ Stream Time 870

☒ Stream Z 872

☒ Stream Multiple Wavelengths

Stream Exposure Time (ms): 50

Stream Illumination

Illumination Device: Sutter DG4 882

Primary Device

☒ Controller 1 Set primary on WAVELENGTHS page

☒ Controller 2 Secondary (all streamed Wavelengths):

☒ Use Shutter 884

Stream To: RAM 890

Memory Required 34.50 Mb Memory Available 255.50 Mb 880

878

874

890

Snap

Live

Bin: 1

Full Chip

Center Quad.

Active Region

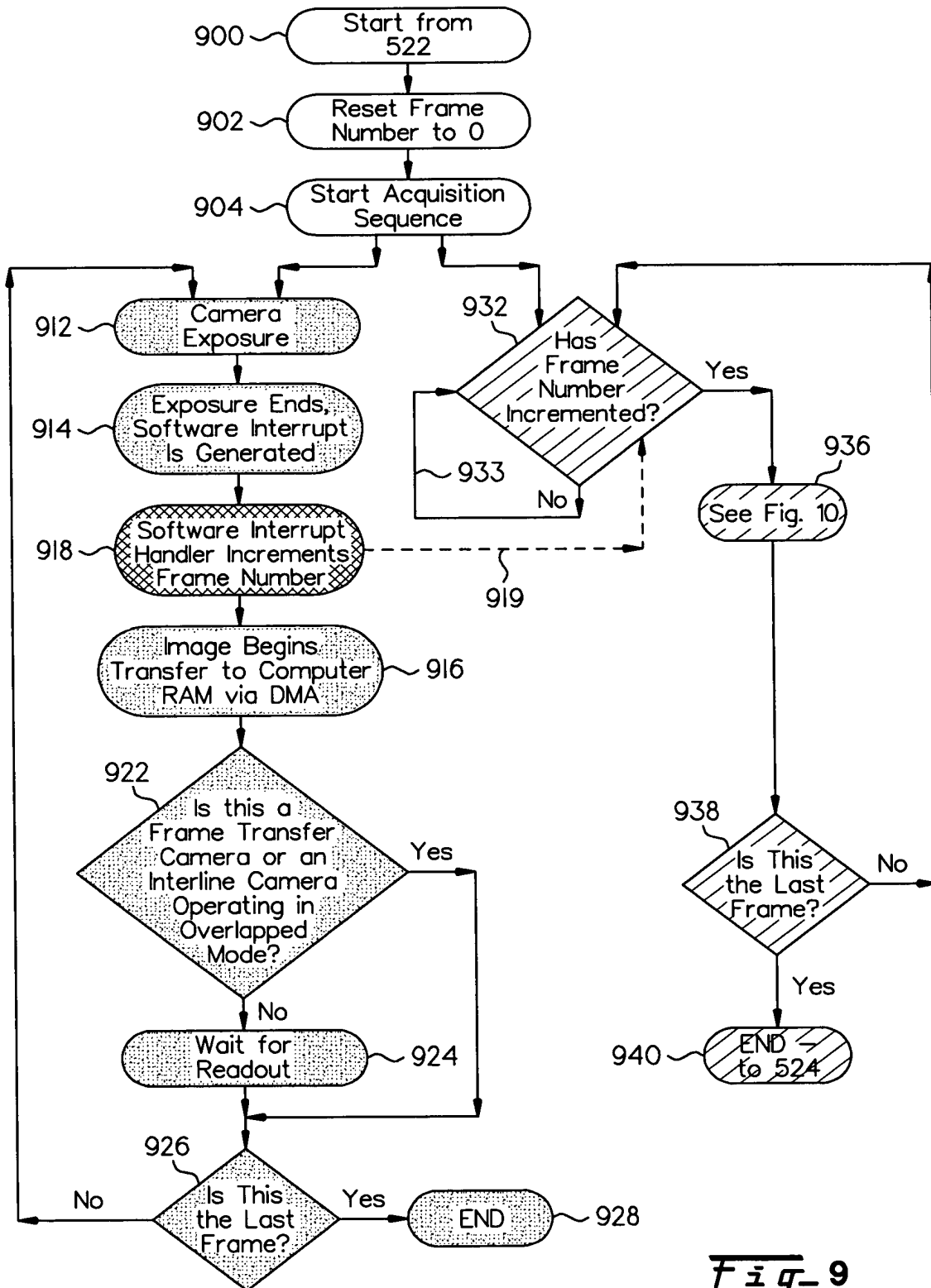
Wavelength: 3:RHOD

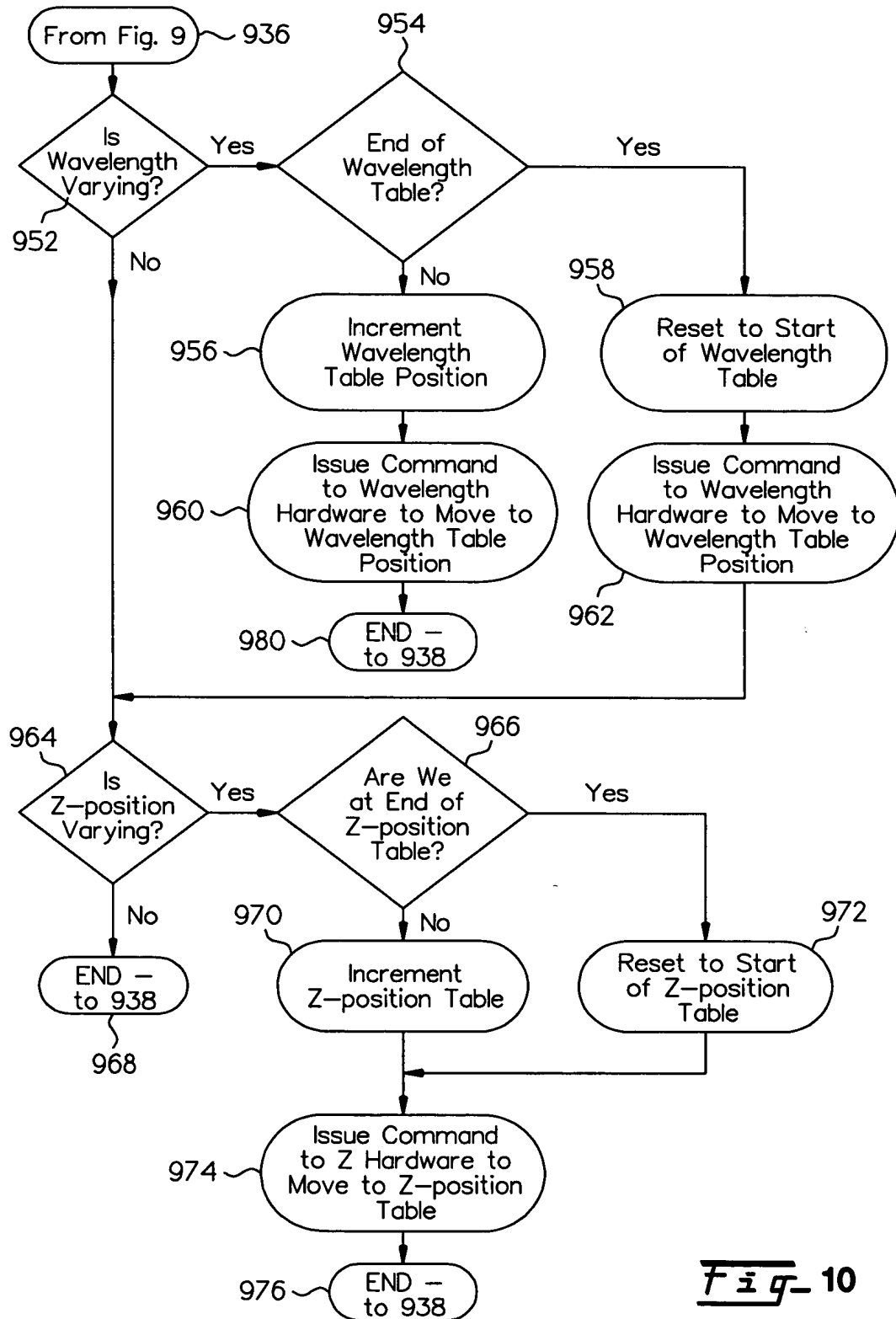
Preview

Acquire

Close

FIG. 8G





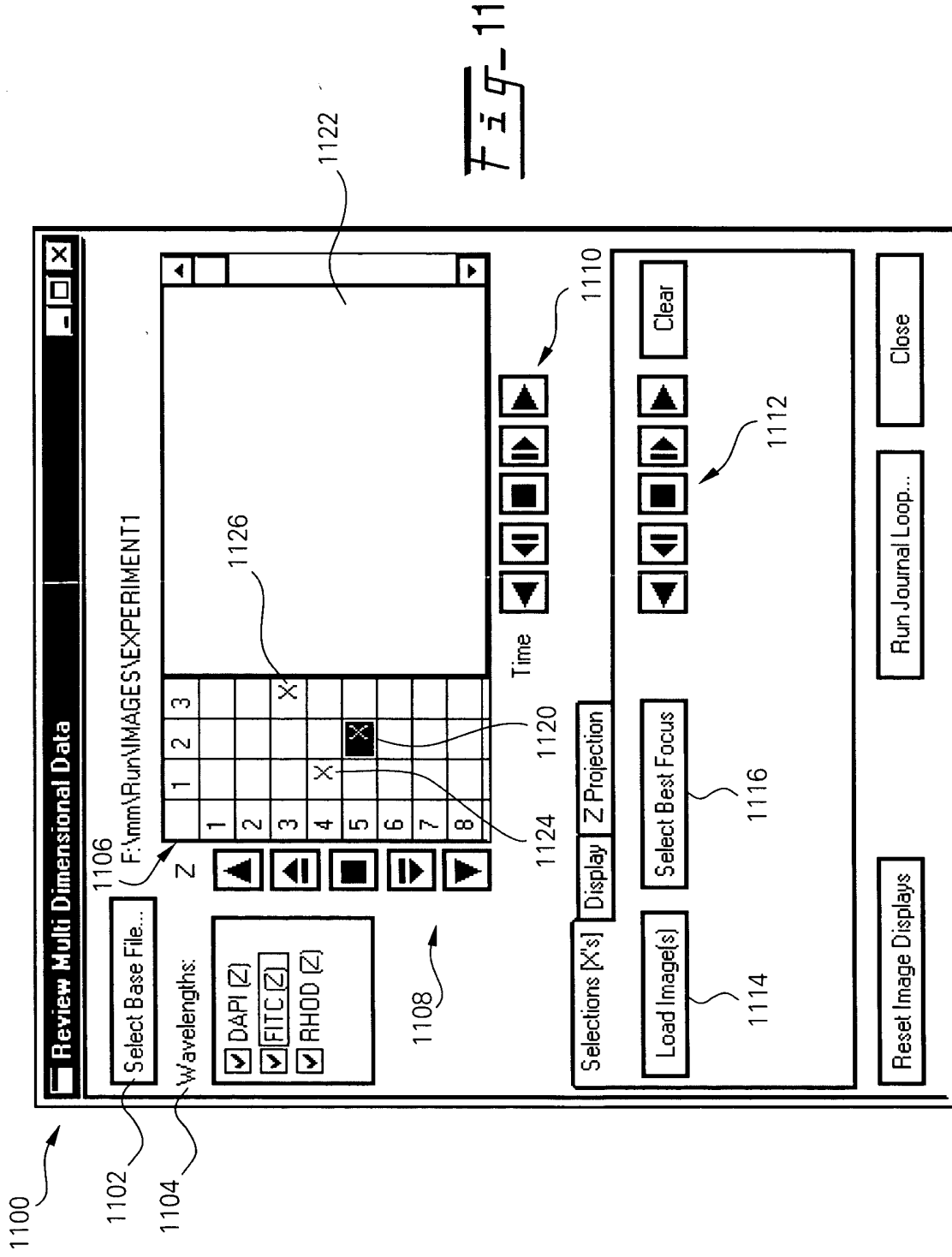


Fig-11